

THE EFFECTS OF MOBILITY ON FOURTH GRADE STUDENTS'
ACHIEVEMENT, ATTENDANCE, AND BEHAVIOR

A Dissertation
Presented to
the School of Education
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In Partial Fulfillment
of the Requirements for the Degree
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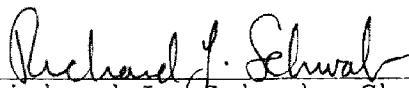
by Sally J. Liechty
October 1994

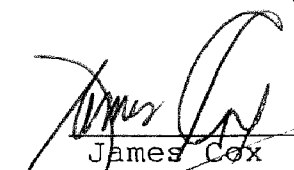
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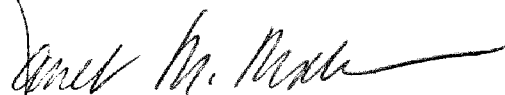
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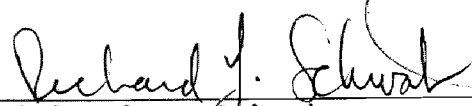
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An abstract of a Dissertation by
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The problem. Mobility causes a substantial disruption in the lives of students and families. The consequences of relocation can be enduring. It seems important for school personnel to ascertain the extent of the problems caused by frequent transfer. Planning appropriate educational programming and meeting the needs of mobile students is of utmost importance. This exploratory study was designed to examine student mobility as it relates to achievement in mathematics and reading, attendance, and classroom behavior of fourth-grade students in a medium-sized Midwest urban school district.

Procedures. Data for the study were collected from a medium-sized urban school district. The cumulative records of fourth-grade students in eight identified elementary schools in the district and a teacher survey were utilized to gain information. Fourth-grade reading and mathematics report card grades were recorded as well as Iowa Tests of Basic Skills (I.T.B.S.) percentile rankings in reading and mathematics. Attendance information was also obtained from the student's permanent record. Teachers completed a behavior checklist called the Teacher's Report Form to indicate the adaptive functioning of a student in a classroom setting.

Findings. Pearson-product moment correlations and stepwise multiple regression analyses were utilized in determining the results in the study. Significant relationships were found between mobility and achievement and behavior. No significant relationship was found between mobility and attendance. Behavior and I.T.B.S. reading scores explained about 10% of the variance when a stepwise multiple regression analysis was completed.

Conclusions. The study indicates that there are two important things to consider. The first is to minimize the negative impact created by mobility on achievement, especially in reading. Second, help the new student learn to adjust to new school settings, new teachers and peers. Schools must take a proactive approach to the impact of mobility when the child enters the classroom door.

Recommendations. Consideration must be given to improving assessment methods to ensure proper placement of the mobile student when they arrive in a new school setting. Staff development programs should include enhancing classroom strategies that will assist the mobile students. Strong counselor support and peer support groups for mobile students should be provided.

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Chapter 1

INTRODUCTION

The movement of families from one area to another has been a trend in American society since our country began. Family relocation rates in the United States are double those of Great Britain and Germany (Wood, Halfon, Scarlata, Newacheck, & Nessim, 1993). Occupations that have traditionally had high mobility rates are migrant workers, military families, clergy, and construction workers. However, current literature indicates that mobility is increasing in corporate populations where families are being moved due to job advancement or job change and for families in distress. Approximately six million children between the ages of 5 and 13 years of age change their residence each year (U.S. Bureau of the Census, 1980).

Educators today accept the fact that many students will change addresses during their educational career. The adaptations which children must undertake in coping with a changed school environment are, for the most part, very challenging. There are unique educational needs related to a mobile population as well. Students who have been relocated often need intensive instructional assistance regardless of the reason for relocation. That assistance

includes curricular adaptations, different expectations, and adjustment to a new teacher.

Mobility is a major cause of social fragmentation in some segments of contemporary American life as it impacts millions of youngsters who find themselves being moved to a new place each year. The impact of mobility on children is not readily predictable. It varies in relationship to the family and other situational factors such as divorce, death, loss of job, or eviction from a household. Many children are resilient and seemingly learn to adjust readily while others struggle with one or more dimensions of relocation.

In urban school districts mobility is a particularly serious problem. Packard (1972) states:

for an urban child under ten years a move of ten blocks throws him into a stranger environment than a move of twenty miles would for his parents. A great many children reach the age of ten without ever finishing a single grade in the same school where they began it. (p. 247)

Student mobility is a situation that is often ignored as an issue by school districts. However, in specific schools within a district where mobility may be prominent it is acknowledged, but seldom methodically examined. Most school districts in the United States are organized around the presentation of educational programs for children who enter and leave as a class. It is assumed that the same classes of children will be in schools year after year.

Test scores are also interpreted under the assumption that students remain in the same classroom for an entire year.

Teacher effectiveness research shows that in order for schools to be successful, teachers must believe that students can and will learn (Levine & Lezotte, 1990). To date, such studies of teacher efficacy have not focused on students who frequently move from school to school. If mobility is negatively related to achievement, attendance, and behavior, there should be a concerted effort to make the transition as smooth as possible and to provide appropriate instructional support services to those pupils who are in transition. The fact is, while it is logical that mobility affects these factors, research on these issues is not conclusive.

Statement of the Problem

Almost every segment of our society is affected by an increasingly mobile lifestyle. The current literature clearly suggests that mobility causes a substantial disruption in the lives of students and families (Holland-Jacobsen, Holland, & Cook, 1984). The consequences of these problems can be enduring.

Millions of children are annually moved from their homes, friends, and schools to relocate in new residences in other towns and cities. The position of the child with respect to mobility is different than that of the parents.

Although concern for the child's welfare is expressed by the parents, the child has little input in the decision regarding the move. The child's opinion regarding relocation is not a major consideration in the decision to leave their old residence to move to a new one. Changes in the child's usual, stable, and comfortable lifestyle are the primary factors in measuring the degree of disruption (Jalongo, 1983).

According to Packard (1983) the child's early years coincide with a period when families are highly mobile. This is often the time when parents are attempting to establish their career and financial status. Mobility is, therefore, a requirement to provide the upward movement sought in the father's or mother's occupations. Many mobile students have negative educational experiences, yet other mobile students are not affected by geographic relocation.

Miller (1966) indicates that:

The mobility of children therefore becomes a legitimate concern of the school from the point of view of administration of student records, orientation of the student population, evaluation of the educational program and establishment and maintenance of good school-community relations. Whatever affects the child affects the school; whatever affects the school affects the child. So it would seem the student's development toward his greatest possible potential would depend greatly upon the school's efforts. (pp. 10-11)

Another aspect of study is the extent to which mobility can affect success. As youngsters mature, schooling and friendships become more important to many students. Success

in the classroom is impacted by how well the child achieves in all areas of the curricula, the child's attendance in the classroom, and how well the child behaves and adjusts to new school situations. Since the foundation of a person's life-long learning rests on success in the primary grades this study was designed to determine if mobility impacts achievement, attendance, and the behavior of fourth grade students. An urban district was selected for the sample because the vast majority of moves within urban districts are due to family problems or economic stress. It would seem logical that the impact of mobility on students experiencing such stress would be even greater than those expressed by students whose parents move for job enhancement purposes (Whalen & Fried, 1973).

Significance of the Study

It seems especially important for school personnel to ascertain the extent of the problems caused by frequent transfer. Every child that moves to a new school must make adjustments to new teachers, unfamiliar students, and different surroundings. School personnel must therefore learn to cope with all that is associated with the uncertainty of new situations. If particular areas are more significantly impacted, energies can be focused on those areas.

Planning appropriate educational programming and meeting the needs of mobile students is of utmost importance. This study has significance in assisting teachers, administrators, and parents to understand the impact of mobility on the achievement, attendance, and classroom behavior of students.

Research Questions

The following research questions were addressed in this study:

1. Is there a relationship between the number of times a fourth grade child relocates and achievement in mathematics and reading as measured by the Iowa Tests of Basic Skills subscale scores and report card grades?
2. Is there a relationship between the number of times a fourth grade child relocates and attendance in the classroom as measured by the number of days absent in the 1992-1993 school year?
3. Is there a relationship between the number of times a fourth grade child relocates and behavior in the classroom as measured by classroom teacher perceptions on the Child Behavior Checklist?

Definition of Terms

The variables included in the hypotheses of this study are operationally defined as follows:

Iowa Tests of Basic Skills (I.T.B.S.) - standardized tests assessing proficiency in the basic skills for academic success that can be administered to students in kindergarten through ninth grade. The math and reading raw scores achieved in the fourth grade math and reading tests during the 1992-1993 school year.

Report Card Grades - grades A-B-C-D-F given by classroom teachers on standard district report cards to indicate progress in reading and mathematics. In this study fourth grade fall and spring grades were averaged.

Achievement - overall achievement in reading and mathematics which includes the average fall and spring report card grades in mathematics and reading and the I.T.B.S. mathematics and reading subscale scores.

Mobility - the total number of times a student has relocated from kindergarten through fourth grade as indicated on the student's cumulative school record.

Attendance - the total number of days the student was absent during the 1992-1993 school year.

Adaptive Behavior - reported adaptive characteristics of a student as perceived by the classroom teacher using the Adaptive Functioning section of the Child Behavior Report Form (Achenbach, 1991).

Limitations of the Study

Data for the study were collected from a medium-sized urban school district. The cumulative records of fourth grade students in eight identified elementary schools in the district and a teacher survey were utilized to gain information. The results of the study apply only to the school district and student population investigated and therefore cannot be generalized. The results may or may not be typical of other schools or other school districts across the country.

Although the research sample appears to be adequate in numbers and range of mobility situations, it was taken from only one school district. All relocations were treated the same in the study. There were no distinctions made as to why students changed addresses nor did it attempt to establish causation.

The researcher wanted a general picture of the student's performance in the classroom. The Iowa Tests of Basic Skills subscale scores in mathematics and reading were used as a general indicator of achievement in those specific areas of learning. However, reading and mathematics are not

the only curriculum areas that indicate a student's achievement. The interpretation of the indicators of achievement is limited by the use of these scores only.

Report card grades are subjective interpretations of a student's classroom performance by the classroom teachers. Many variables affect a given grade and the variables are different for each teacher. In some cases more than one teacher taught math and reading to the same student so a shared decision had to be made regarding the grade. These factors combine to increase the subjectivity of the data.

The researcher had to interpret the number of relocations according to the information provided in the cumulative record. If the record indicated the student first came to the district school in third grade and had remained in the same school for fourth grade then one move was recorded. If the record showed the student beginning in kindergarten in the school district, then missed two years returning to the district in a different building, it was recorded as two moves. If three schools were listed as attendance areas, then two moves were recorded. The first school was considered the starting place for the child's schooling and only when the cumulative record indicated some difference was a move counted. The records were examined for any other information indicating a move for the student and recorded pertinent information accordingly. For example, a copy of a report card from another school

district or special education information from another state would be indicative of a move.

Summary

This chapter introduced the influences of mobility and how it can affect students in their school setting. Because many students change residences, educators must be prepared to meet the needs of these students as they move in and out of classrooms across our nation. Peer relationships and adjustments to new school settings are a concern of mobile students. These students often need curricular adaptations and intensive instructional assistance.

A rationale for conducting this research was presented and an overview of the study design was provided. Many issues introduced in this chapter will be addressed in more detail in the following chapters.

In Chapter 2, the related literature is reviewed concerning mobility and achievement, attendance, and behavior. Chapter 3 contains a detailed discussion of the research design and methodology utilized in the study. Chapter 4 contains a presentation and analysis of the data and in Chapter 5 the results of the study are summarized along with recommendations for future research.

Chapter 2

REVIEW OF RELATED LITERATURE

America has always had high rates of mobility throughout its history. It is believed that mobility will continue to occur at high rates because it is a way of life in modern society today (Packard, 1983). Despite the fact that mobility is a way of life, research on the effect of mobility of school children is limited.

The current literature which investigates the effects of student mobility on achievement, attendance, and behavior is presented in this chapter. The first section of the literature review defines student mobility. The literature on mobility and student achievement is summarized in section two. The third section discusses the effects of mobility as it relates to attendance. The chapter concludes with a discussion of student behavior and mobility.

Student Mobility

The average American family moves once every five years (Goebel, 1978). Approximately 20% of the population, which includes about six million school-aged children, change residence each year (Blair, Marchant, Medway, 1984; Fulton, 1970; Klee, 1988; Lindblad, 1986; Ruby, 1972; Stubblefield, 1955). Of those six million children that move to a new

house each year, about five million move to a new school district (Packard, 1983).

The mobility which characterizes America's urban society is made up of countless thousands of individual moves. Some of the mobility is an expression of the growth of our population. Each move is not a random event, but is determined by a household's needs, dissatisfactions, and aspirations (Rossi, 1955). Levine, Wesolowski, and Corbett (1966) suggest that the rate of movement seems to be highest in that segment of the population where a high proportion of social problems and educational difficulties are found. Although studies concerned with student mobility are most often associated with the military populations and migrant workers, people move from place to place for various reasons. Families move long distances and they move from residence to residence within the same city or community. Wood et al. (1993) state emphatically that a family move, regardless of the reason, disrupts the living environment of the child and can require important adjustments for the child and family.

It seems obvious that some types of moves have more effects on the persons involved than others (Rossi, 1955). Possible effects may vary according to the circumstances of the move, the socioeconomic status of the family, and time of year when the move occurs (Long, 1975). We do know that

a minority of the children account for the majority of the moves.

Not all relocations occur at convenient periods in the academic year for students. Many family transfers occur at the convenience of an employer. Students suffer the most and have the least control over the situation (Schuler, 1990). Peak times for new arrivals in schools occur just after the beginning of the school year with a second peak almost as high at the beginning of the calendar year. Children who enroll after the beginning of the school year are less likely than others to be present at the end of the year (Bracey, 1991; Lash & Kirkpatrick, 1990).

The incidents that precipitate a move can be both positive and negative. Research (Barrett & Noble, 1973; Whalen & Fried, 1973) indicates that mobility can denote success such as corporate employees that move from place to place due to job change or job advancement. Geographical mobility among corporate executives suggests that identification with the organization is stronger than with the loss of regional community ties (Pedersen & Sullivan, 1963).

Mobility can also be forced upon families and individuals (Benson, Haycraft, Steyaert, & Weivel, 1979; Lacey, Schools Council, & Blane, 1978; Morris, Pestaner, & Nelson, 1967). The military population, migrant workers,

clergy, construction workers, and family distress situation are the most common examples of forced mobility

In a study by Fox (1989) the findings suggest that students who live in a two-parent household demonstrate better achievement and behavior after moving than those who do not. Other studies suggest that one-parent families move more often than two-parent families. Motherless families move more often than fatherless families and marital breakdown causes more mobility than the death of a spouse (Whalen & Fried, 1973). Rossi (1955) suggests that renters are more likely to relocate than those who own homes. The younger the head of household, the more inclination there is toward mobility.

McAllister, Kaiser, and Butler (1971) suggest that there is only a slight difference between blacks and whites when considering lower occupational status, shorter duration of residence, lower satisfaction with dwelling unit, lower income, and higher social mobility commitment. Blacks indicate that the first reason they move is that they are forced to do so and whites indicate that their first reason for moving is the need for more space. Geographic mobility is considerably lower among blacks than among white families in the United States. However, blacks remain within the same city but relocate more often within that same city than do whites. Blacks more often rent than own their own homes.

White people in higher income areas find it easier to move than white people in low income areas.

According to Packard (1972) there are four forms of mobility that create great distances between people. Those include: people who move again and again, communities undergoing upheaval, fragmentation of the family unit, and people living in their own homes but remaining strangers with their neighbors. Because of relocating, relationships with others do not include knowing people who share one's concerns, knowing others one can count on, having one or more close friends, or knowing someone who respects one's competence.

Packard (1972) informs us that chronic movers are Americans found in certain social classes including those people with some college education or with substantial incomes who are most likely to move across county lines and people who are unemployed who tend to move shorter distances. People between the ages of 25-34 who are in the work force are also considered to be chronic movers, however, the mobility in this group decreases with each decade the jobholder gets older. Those who live in apartments and other multiple family dwellings tend to be more mobile as well.

Families with school-age children are particularly likely to be mobile. Packard (1983) tells us that American children relocate twice as often as European children. With

this information in mind, it is easy to agree with Splete and Rasmussen (1977) who state that "mobile children come to our American schools from diverse social classes and varying family backgrounds" (p. 225). Whatever the reason, moving away from one's home can be a stressful situation for everyone (Jalongo, 1985).

Bayer (1982) looks at mobility in a unique way. Rather than looking at mobility simply as the number of times a person changes addresses, he classifies the types of moves. Bayer (1982) distinguishes between systemic moves and individualistic moves. Systemic moves generally involve the relocation of entire cohorts of children. Children have changed schools due to racial desegregation, school closings, balancing school enrollment, and a shift in the four-year high school model.

Individualistic moves are the relocation of the individual child from one school to another. A significant individualistic school transfer flow is the movement from public to private and private to public schools. The movement between these sectors occurs for many reasons: academic, behavioral, financial, social, personal, and religious (Bayer, 1982).

Bayer specifically emphasizes that schools can be viewed as transition organizations. Systemic changes do not cause social changes for the child like individual changes do. Systemic transfers keep the peer group intact and

friendship networks maintained. The family, neighborhood, and community remain stable. All transfers resulting from systemic factors occur at the beginning of the school year. Individualistic transfers are more likely to occur throughout the year.

Bayer (1982) generalizes that the environment within the school may be somewhat more hostile to individualistic transfers than to systemic transfers. It is postulated that schools may be most poorly equipped to facilitate the child's adjustment to a new school environment under these conditions in which the degree of the severity of the experience for the child is the greatest.

Not all the effects of mobility can be considered detrimental. Mobility can result in some rather positive opportunities for students as well as for families. Moving can provide a refreshing change and a chance for fresh beginnings. This is often true of military families who often hold the view that moving is an adventure that increases their opportunities to see more of the world and meet people from many places. This possibility is just as viable in terms of the effects of mobility as is any negative effect (Stewart, 1991).

Mobility is a complicated process which has many variables. The social interaction of the individual mover is of greater importance and validity than the movement (Prior, 1974). Smardo (1987) suggests that mobility seems

to be too broad a variable to test independently due to the broadness in scope of the context. It has long been thought that there is a relationship between geographic mobility and the effects mobility has on students. The results of the studies focusing on mobility and how it affects other variables continue to be inconsistent and inconclusive.

Mobility and Achievement

The mobile child has been perceived as a problem in public schools. Educational leaders in our schools today believe that mobility is a factor that affects a pupil's progress in the classroom. Parents also believe that mobility interferes with their child's educational growth (Rachild, 1988). It is evident from a review of the literature that research in the area of student mobility and achievement is inconclusive. Many studies (Justman, 1965; Lindblad, 1986; Whalen & Fried, 1973) indicate that achievement is affected positively by mobility and other studies conclude that mobility does not impact achievement results (Concannon, 1985; Prior, 1974; Rachild, 1988). In most of the studies, reading, mathematics, and language arts are the curricular areas most assessed and a concentration on fourth, fifth, and especially sixth grade students is found.

Mobility contributes strongly as to how children experience their school situation.

Each change of school for the mobile student presents a transition point--a point of risk--where the actions of the student, parent and educators can set in motion either a positive or negative spiraling affect. (Hill, 1993, p. 49)

In addition to the concerns about positive school settings for students, it has been determined that mobility does disrupt a student's education. School changes mean altered educational requirements, behavioral expectations, and curricula. For the reasonably good student, a move, if not made during the school year, may not affect his or her school grades significantly. For the average or below-average student who struggles to cope with academic problems on an on-going basis, moving to a new school may prove to be a negative experience (Packard, 1983; Schaller, 1974).

The number of previous schools attended in relation to academic performance were examined by Gilliland (1958), Morris et al. (1967) and Perrodin and Snipes (1966). Gilliland (1958) found that 1,800 mobile fifth and sixth grade pupils were significantly ahead of non-mobile pupils in mean achievement scores for all subject matter areas except arithmetic. High IQ mobile children were superior to high IQ non-mobile children, while the achievement of low IQ mobile children was slightly, but not significantly, lower than that of low non-mobile children. The advantage in mean achievement scores which mobile pupils had over the non-mobile pupils in subjects other than arithmetic, and the

disadvantage which they had in arithmetic, was found by Gilliland to increase as the number of schools attended increased. In addition, Gilliland noted that mobile children of professional parents appeared to gain more from mobility than the children of unskilled laborers.

Perrodin and Snipes (1966) used a sample of 483 pupils in the sixth grades of six elementary schools and found no significant relationships between achievement except for arithmetic and the number of times the student had changed schools. They found that pupils who had relocated the greatest number of times did significantly better in arithmetic than those changing addresses three or five times. Morris et al. (1967) found in their investigation of 410 fifth-grade elementary children that mobility did have a negative relationship with reading achievement, but not in arithmetic. This study looked at intelligence, race, and socioeconomic factors as they related to achievement.

In a study conducted by Abramson (1974) fifth-grade non-mobile students achieved higher scores in reading than did fifth-grade mobile students regardless of ethnicity and socioeconomic status. He also found that a higher percentage of non-mobile students were reading at or above grade norm than were the mobile students. Abramson (1975) then did a follow-up study analyzing the reading achievement scores of four groups of students: non-mobile remaining in their school, non-mobile attending intermediate school,

mobile remaining in their school, and mobile attending intermediate school. Both mobile and non-mobile students who remained in their elementary school were superior in their reading achievement as compared to their sixth grade counterparts who attended the intermediate school.

Ruby, in 1972, studied the relationship among 208 fifth and sixth grade students attending one school system in Iowa and three school districts in Illinois. He found that students' school mobility was related to lower scores on reading and arithmetic performance if four or more school systems had been attended. Jones (1989) also found evidence to prove that non-mobile students' achievement is higher than the mobile students' achievement at all grade levels.

Levine et al. (1966), Miller (1966), and Murton and Faunce (1966) investigated mobility and achievement in inner city schools. Levine et al. (1966) found that the more frequent the change of residence and school for a child, the poorer their grades were across all curriculum areas. The authors also found the relationship between school grades and number of schools attended was strongest among girls, although the girls generally had better grades than the boys.

Miller (1966) matched 115 mobile subjects according to school cumulative records by IQ and sex with 115 non-mobile subjects from culturally disadvantaged neighborhoods and 109 mobile and non-mobile students were matched by IQ and sex

from a middle socioeconomic neighborhood. Miller (1966) used the Otis Quick-Scoring Beta Test as a measure of intelligence and the Stanford Achievement Test as a measure of achievement. Miller (1966) concluded that mobility did not play a significant role in influencing the academic achievement of culturally disadvantaged students according to the Stanford Achievement Test.

Murton and Faunce (1966) studied three groups of mobile students: inner city group, buffer group (district next to the inner city, moving away from), and a middle-class target group. The test of mental ability was the Otis Test of Mental Ability on which the inner-city youth scored more than eight points below their counterparts. Iowa Tests of Basic Skills were used to obtain reading scores and similar results were found for reading achievement. She concluded that mobility did have a disruptive effect.

A group of sixth graders in Colorado were studied by Benson et al. (1979). Socioeconomic status, mobility, achievement, and adjustment were considered. In this study mobility was based on the number of schools each child had attended as determined from the child's school history. Achievement was the reported percentile rank for the Reading Subtest of the Stanford Achievement Test. Adjustment was measured with the Classroom Behavior Inventory. Mobility was negatively related to achievement, adjustment, and

socioeconomic status using Pearson product-moment correlations and regression analyses.

Whalen and Fried (1973) found in their study that there was a relationship between mobility and achievement. High mobility was defined as those students attending four or more schools and low mobility students were those who had spent all their school years in the same school district. High intelligence students were those with IQ scores of 110 or above and low intelligence students were scores below 110 as measured by the Lorge Thorndike (10), Level G, verbal IQ scores and Iowa Tests of Educational Development (ITED) achievement test scores. The authors concluded that perhaps more capable students have more confidence to meet the challenge of new environments and less capable students find frequent relocations too bewildering with which to cope.

A study by deNomme and Wells (1981) found that mobile students, especially those who change educational settings frequently during the early years of their formal schooling, "are more likely than others to display characteristics of students having specific learning disabilities" (p. 7). They called this phenomenon Transiency-Affected Developmental Syndrome and posited that these students needed specific programs, which differ from deficit and compensatory programs, to enhance their learning capabilities.

Many researchers have found that mobility does not affect academic achievement. Mobile students' academic achievement is equal to non-mobile students. Often this is true in studies of military populations where no significant differences were found in mobile and non-mobile sixth-grade students in reading comprehension and vocabulary (Cramer & Dorsey, 1970).

One of the most cited investigations is that of Bollenbacher (1962). She used the entire sixth grade public school population of Cincinnati, a sample of 5,578 students. She found that there was a real and significant difference on grade scores of the Stanford Intermediate Reading Test. There was a 5.4 (fifth grade, fourth month) grade equivalent for those who moved three or more times as against 7.1 (seventh grade, first month) for those who attended only one school. There was also a difference between IQ scores: 90.8 for the mobile group and 103.1 for the non-mobile group.

Bollenbacher (1962) concluded that,

When the differences in intelligence test scores of the groups are taken into consideration, the results of the covariate analysis indicated that reading achievement as measured by a standardized test was not effected by the number of schools attended. (p. 360)

The study emphasizes that the correlation between mobility and achievement may change radically when certain variables are controlled.

Snipes (1966) investigated the cumulative records of 483 sixth graders in Georgia and found that the movers scored higher than the non-movers in vocabulary and comprehension as measured by the California Achievement Test. Snipes (1966) concludes that the number of moves does not appear to have a negative effect on the achievement of reading. In fact he found that moving appears to strengthen achievement in this specific area.

Gilchrist (1970) studied the school records of 314 pupils, randomly drawn from a total population of 2,386 sixth-grade children in a single school system in northern Indiana, to find the relationships among mobility, sex, socioeconomic status, and IQ scores. On the basis of her data, she concluded that when the differences of ability, sex, and socioeconomic background are controlled statistically, reading and arithmetic achievement are not related significantly to mobility.

Mobile students of military personnel and non-mobile students in Rhode Island were investigated by Stiles (1968). The purpose of the research was to determine if mobility affected children's school work in any way and whether the student suffered psychologically. The 173 non-mobile students never excelled in academic achievement or in anxiety testing over the 138 mobile students. Stiles (1968) believes that in many ways mobile students could have

benefitted from their travel experiences by gaining richer experiences and a wider range of friends.

Black and Bargar (1975) considered the relationship between reading achievement and pupil mobility of 208 sixth grade students in high mobility-low income elementary schools in Columbus, Ohio, using movement history, pattern, and time as independent variables. The findings revealed that if students transferred in and out of the same schools repeatedly they may achieve higher reading scores while lower reading achievement may result if mobility occurs in lower grades. However, the authors concluded that the reading achievement of mobile students is not significantly different from non-mobile students when grouped according to their movement history, pattern, and time of movement. There was also no significance in reading achievement among the mobile students as a group or between mobility and the sex of the student.

Goebel (1978) concluded that the effects of mobility on academic achievement depended on the pattern and rate of mobility, gender of the pupil, and the measuring device being used. Short-term performance was measured by grade point averages and long-term performance was measured with the scores of the Iowa Tests of Educational Development. For each mobility pattern students were categorized on the basis of mobility rate into non, moderate, or high mobile groups. Mobility was computed using the number of moves

made during the preschool, elementary, and adolescent periods. The number of inter- and intra-community moves was also considered. The current tendency to view mobility as a negative influence on academic development was not supported by the findings. The results of this study suggest that parents and teachers should be more concerned about the age of the child and type of move than about how often a child relocates.

Another study considered the absence of school programs for new students. Lash and Kirkpatrick (1990) suggest the major responsibility for working with mobile children rests with the classroom teacher. In this San Francisco study, the authors assessed what happened to new students when they arrived at school. The student was assigned to a classroom with the least number of students at the appropriate grade level. For the most part, the teacher had no advanced notice of the student's arrival so no specific preparations could be made to accommodate the new student's needs. The teachers indicated that there was certain information about new students that would benefit their planning for the student which included health information, parental expectations, other school experiences, academic performance, behavioral issues, and attendance reports. For the most part, student cumulative records never accompany the student to their new placement.

New students need to become part of a class that has already built history, including a sense of purpose, common understanding of rules and routines, and a shared knowledge base acquired from previous instruction and required for subsequent learning.

Mobility and Attendance

Improving school attendance is a difficult and important challenge for school districts today. It is natural to assume that mobile students will miss more days of school because of the procedures involved in relocation. Conclusions deriving from this assumption cannot be confirmed as no researcher thus far has explored the effects of mobility and attendance. Research which offers reasons for poor attendance is also lacking even though the problem has been increasing and thus interferes with the educational process. There are research results, however, that consider the effects of absence and achievement as they relate to each other.

Ghory (1987) presented a study on the identification of factors that were utilized in recognizing merit schools. Clearly, mobility was considered to be a detriment in the achievement of merit school status. Principals firmly believed that attendance of students should not be considered a factor for identification. The author emphasized that the achievement of merit school status was

not an attainable goal for those schools most affected by mobility and high absenteeism.

Stennett and Isaacs (1980) suggest that absence from school has differing effects on achievement as a function of the student's ability, prior achievement, gender, and socioeconomic status. In addition, the effects of absence are cumulative and the measured effects may depend on when the absence takes place in relation to when the achievement measures are taken. It is also likely that absence from school may have more detrimental effects in some subject areas than in others and be more critical at certain grade levels. The literature strongly suggests that girls are absent more often than boys (Easton & Engelhard, 1982; Monk & Ibrahim, 1984; Stennett & Isaacs, 1980).

Monk and Ibrahim (1984) studied not only the quantity of absence of students, but also the patterns of absence as they related to pupil performance during algebra instruction. The authors suggest that if some periods of instruction are more important for learning than are others, then the timing of absences can have substantial effects on how much a student learns. If a student happens to be absent on days when new material is introduced or when the class takes time to review material the student has not mastered, the student's performance level will be more adversely affected than if the absences occurred on days when a review of already mastered material takes place.

Absence not only reduces the amount of schooling time but causes a disruption in the sequence of learning. Students who experience more episodes of absence, regardless of length, experience more disruptions and disruptions are negatively related to performance (Monk & Ibrahim, 1984). Much depends on the amount of remedial assistance the classroom teacher is willing to provide after the absences of each student. The results imply that absenteeism is a cause of differences in learning. However, absenteeism may also be a consequence of activities taking place in school. If a teacher is weak or a class is unruly, a student may respond by being absent excessively.

A group of high school graduates and a group of high school dropouts in Philadelphia were studied by Yudin, Ring, Nowakiwska, and Heinemann (1973). Many factors were studied as contributors to school success or failure. However, significant attendance patterns for some students were noted as early as first grade. The dropout students changed residences 33-1/3% more often than college-bound students during their school years. College-bound students transferred between schools 50% less often than dropout students. Unexcused absences remained very low for the college-bound student and rose every year after fifth grade for the school dropout. Excused absences for the college bound student ranged from 15 absences per year in first grade, which was the highest, to 4 absences in grade 12.

Dropout students began first grade with 18 absences per year and rose to 35 absences by grade 12. The study revealed that poor attendance and behavior patterns affected students negatively.

Rozelle (1968) found relatively low correlations between students' absence rates and their grades in a variety of high school courses. He interpreted that prior attendance has a causal effect on subsequent school achievement. Ekstrom, Goertz, Pollack, and Rock (1986) inform us that regardless of ethnicity, gender, or curriculum choice, staying in school increases achievement gains in all tested areas. Attendance and mobility were considered to be major problems seen by teachers of disadvantaged students (Lovett, 1983). In a study done by Greene (1963) the absentee is described as "an individual exposed to conditions and pressures which produce unfavorable attitudes toward the school" (p. 393). The conditions include low achievement, a history of absences and behavior concerns, inflexible academic standards, and unfavorable parental opinions of schools.

Fernandez (1987) studied the relationship of mobility and achievement. The results showed that mobility had little affect on achievement, but behavior and attendance proved to have a statistically significant effect on performance. The author suggests that often teachers have

lower expectations for the mobile student which in turn affects attendance and behavior patterns.

Easton and Engelhard (1982) discovered that there was a correlation between reading achievement and school attendance. The authors suspected that even higher correlations would have been found if they had distinguished between excused and unexcused absences.

James Comer (1988), in his school development project, considered the achievement and attendance of students important factors in improving schools. The Comer Process is a research-based school improvement model that is centered on the idea that if parents, teachers, and staff share control of a school, they will convey a positive attitude to the children, who will then be motivated to learn (Stocklinski & Miller-Colbert, 1991). The process works to reduce the alienation from school often felt by students as well as parents. Because the process encourages a strong emotional bonding between the school and the student, the school can respond more creatively to individual needs. It is Comer's belief that a school-based community results in improved achievement, attendance and behavior (Anson, Cook, Habib, Grady, Haynes, & Comer, 1991).

Edwards (1990) looked at eight different variables that affected ninth-grade education in a Florida high school. Achievement, attendance, and behavior as they related to school grade-organization were considered in this study.

The author indicates that schools are not effective if students are not engaged in active learning, not attending classes routinely, and behaving so that suspension results. However, students attending ninth-grade centers performed better in all three areas than they did in a regular high school setting.

In a Minneapolis study, Murton and Faunce (1966) found highly significant differences in the attendance of mobile children as compared to non-mobile students. Twenty percent of the mobile students were absent 21 or more days in the sixth grade as compared to 6% of the non-mobile group. The mean number of school changes from kindergarten to sixth grade for the mobile group was 3.08 and for the non-mobile group was 1.60. Levine et al. (1966) found that only one out of four children currently in the sixth grade had begun in the same school. The vast majority of the moves, however, had originated and ended in the city of New Haven.

Concannon (1985) looked at parochial schools in New York and found that attendance did not have an effect on achievement when analyzed in conjunction with the various aspects of mobility which included extent, grade, type, and direction of the move. The author suggests, however, even though a significant relationship was not found among mobility, attendance, and achievement that research needs to continue investigating the relationship of these variables.

Absenteeism for reasons other than serious illnesses often reflects a lack of student interest or student problems beyond the academic scope of the school suggests Bare (1991). She also indicates in her study that family goals often are in opposition to school attendance. Bare's study substantiates the assumptions that school leaders have regarding good attendance and achievement. It is not uncommon for a student to be needed at home for childcare or care of an elderly family member. In the quantitative part of her study Bare (1991) found that there was no significant difference in academic success between students who had good attendance and students who had poor attendance. The author also interviewed four focus groups regarding attendance. Three of the four groups were certain that good attendance positively impacted the learning process. One group did not improve grades with better attendance so they were uncertain if it was beneficial to attend school regularly.

Mobility and Behavior

The bulk of the literature about mobility and student behavior and adjustment tends to be theoretical and anecdotal in nature. The published literature in this area tends to support the concept that these children do struggle to cope with many family moves which can cause emotional upset (Harms & Fleming, 1976). Packard (1983) suggests that youngsters who move a lot often develop one of three

behavioral patterns: they become super-cool, they become far out in their behavior to attract attention, or they become a lonely recluse. Holland, Kaplan, and Davis (1974) state that mobile children are "high risk" children requiring assistance adjusting to a new school and Kantor (1965) states that mobile students are "less well adjusted."

Highly mobile students have more than average difficulty in developing really close friendships (Schaller, 1974). They also have an identity problem as they cannot answer where they are from because they are from "a lot of places." Because of the mobility it is believed that these youth are growing up poorly educated, ill prepared for the world of work, and failing to cope well on emotional fronts (Hewlett, 1991).

Schaller (1976) collected data on the cognitive and behavior changes that occur as an individual transfers his membership from one group to another. Of 916 responses of fourth- and fifth-grade students, 54% reacted negatively to a new student coming into the classroom, 28.5% reacted positively, and 17.4% were neutral in their response. The responses were about the same whether the new student was a boy or a girl. The girls met with greater acceptance from girls than boys did from boys.

Girls evaluate newcomers more positively than boys do and male members of the class expect more positive reactions

from girls than from boys. Schaller (1976) suggests that there are greater assimilation problems for boys than for girls after a family move. Newcomers must seek acceptance from the same sex child before they seek acceptance from the other sex.

One factor that is most influential in the assimilation process is that boys interact mostly in groups of three to five members while girls are mostly interacting with one other person which indicates that it may be easier to join a boy group than a girl group. For the most part, the results indicated that most reactions showed by pupils in grades four and five were negative.

In case studies of children involved in family moves Stubblefield (1955) indicates there is a possibility of aggravating children's emotional problems by family movement, the effect of which may be anxiety producing isolation. Family moves can significantly distort existing family adjustments. The behavior of children reveals the ambivalence and regression which frequently develops. Children must be aware of proposed family moves a reasonable period of time in advance of the event. The child needs to have ample opportunity to react to the family move, to express emotions about it, begin explorations of the reasons for the move, and its impact on the relationships with peers. Smardo (1987) reaffirms the negative effects of mobility by reporting that children experience feelings of

loss, a lessening of parental attention, a feeling of helplessness, fear of abandonment, loneliness, irritability, and anger.

In 1953, Downie found that newcomers to classrooms were significantly underchosen in sociometric studies of acceptance. The author also found that one or two previous moves, or having been in the school from one to three years after having moved, produced greater-than-average acceptance by the other pupils. The study implied that emotional acceptance increases, generally, with the time the child has been in the classroom. Most sources, however, suggest that children be given ample warning that the family is about to move, sufficient explanations so that they can understand the reason for the move, and support by parents when learning to live in a new community.

Summary

This chapter has examined pertinent literature in the area of mobility as it relates to achievement, attendance, and behavior. There is a great deal of research on mobility as it relates to achievement. Many studies found a relationship between achievement and mobility and many studies found that there was no relationship between the two variables. In some studies where more than one subject area was considered the studies found that there was a relationship between mobility in some curricular areas such

as reading and no relationships with other subject areas such as math. The current literature was inconclusive in considering mobility and achievement.

Peer relationships and social adjustments were the biggest areas of concern when looking at the research on the relationships of mobility and behavior. Most of the literature emphasized the importance of school procedures as they relate to assisting mobile students in adjusting to a new school setting.

There is a great deal of research completed on the relationship of achievement and attendance, but thus far no research has been specifically on mobility and attendance.

Chapter 3

METHODOLOGY

This exploratory study was designed to examine student mobility as it relates to achievement in mathematics and reading, attendance, and classroom behavior of fourth grade students in a medium-sized midwest urban school district. This chapter presents the research design and data gathering techniques used in the study.

Description of the Population

All 39 elementary schools in the medium-sized midwest urban school district were ranked from the lowest to the highest using the mobility percentage from the 1990-1991 building data base. The schools were divided into seven clusters of five schools and one cluster of four schools. One school was randomly selected from each cluster. The characteristics of the eight schools utilized in the study are briefly described below:

Elementary School A: School A serves 386 students. It has three fourth-grade rooms and 55 fourth-grade students. It has a 26.2% mobility rate and 35.4% of the student population receive free and reduced price meals. They ranked 11th in the district in I.T.B.S. composite scores. The school is located in the northeastern part of the city.

Elementary School B: There are 396 students attending School B. It has two fourth-grade classrooms that serve 54 students. This school ranks 14th in mobility percentage with 46.2%. Thirty-four percent of the students receive free and reduced price meals. The school received a composite score on I.T.B.S. of 83% which ranked the school sixth in the district.

Elementary School C: This school community is a fast growing area with many new housing developments. It is the largest elementary school in the study serving 500 students. There are 85 fourth-grade students and four fourth-grade classrooms. The mobility percentage is 24.4% and 27.2% of the population receive free and reduced price meals. It ranks 15th in the district for composite I.T.B.S. scores.

Elementary School D: This school is located near the inner city and is a magnet school with a fine arts emphasis. Students from any school in the district may apply for open enrollment and are bussed to the building. There is also a large low income housing area nearby where many of the 379 students reside. Three fourth-grade classrooms serve 59 students. The mobility percentage is 56.8% and 66.5% of the total student population receive free and reduced price meals. Their I.T.B.S. composite score was the 28th percentile which ranked School D 12th in the district.

Elementary School E: School E was built as an open space facility and serves 394 students. It has an 85.7% mobility rate which is the second highest in the district. Three teachers serve 58 fourth-grade students. Nine of those students are fourth graders in a self-contained special education classrooms. There are 51.5% of the students receiving free and reduced price lunches. The I.T.B.S. composite score was 21st percentile. The school is located in a low income area of the district.

Elementary School F: There are two traditional elementary schools in Des Moines. Students may apply to attend school at one of these two centers. The program provides more time in their curriculum for the basic skills areas of the curriculum and less time for art, music, and physical education. A contract must be signed by the parents agreeing to a dress code and specific discipline requirements. It ranks highest in the district with a composite I.T.B.S. score of 94%. School F serves 469 students with 77 fourth-grade students in three classrooms. It has a 12.2% mobility rate and 4.8% of the students receive free and reduced price meals.

Elementary School G: There are 357 students attending school at School G which is located in the north part of the district. It has 53 fourth-grade students in two classrooms. The mobility percentage is 34.6% and 44% of the

student population receive free and reduced price meals. The composite I.T.B.S. score was 62nd percentile which was a rank of 19th in the district.

Elementary School H: This school is located in the southwest area of the district. A popular housing area for low income students is a mobile home park close to the school. Many students move in and out of the mobile home area which accounts for some of the 38.8% mobility percentage. Twenty-seven percent of the students at School H receive free and reduced price meals. The I.T.B.S. composite was 64th percentile which ranked 16th in the district.

Data Collection Procedures

Written approval to conduct the study was secured in May 1993 from the district research committee and the Assistant Superintendent for Curriculum and Instruction. Permission for the study was also granted by the Human Subjects Review Board at Drake University. The eight building principals were notified of the approval in writing by the district research committee. The researcher contacted each principal and scheduled a personal conference to discuss the study. Letters were then sent to the 21 fourth-grade teachers asking for their assistance with the research (see Appendix A). Each teacher was also sent a

copy of the behavior report form which they would be responsible for completing for each student in their classroom (see Appendix B).

A meeting was held with the teachers in each building to instruct them in the process of completing the forms. Packets of materials were given to each teacher and arrangements were made for the researcher to return to each building and collect the completed materials. The information from the teachers was recorded on a data document recording sheet (see Appendix C).

Letters were mailed to the parents/guardians of each fourth-grade student in the study (see Appendix D). The letter informed them of the study, clarified the reasons for the research, and asked permission to review the child's cumulative record for specific information needed in the study. The information included: gender, ethnicity, number of moves in each grade, 1993 I.T.B.S. raw scores in mathematics and reading, first and second semester report card grades in mathematics and reading, and attendance. A negative response form was used so that parents contacted the researcher only if their child was not to be included in the study.

All fourth-grade students ($n = 483$) in the eight elementary schools were included in the sample. All student's parents were sent a letter informing them of the study. As a result eight students were dropped from the

study due to parent request and one student moved after the class lists were collected. The final sample included 474 students which is 98% of the sample population.

A student assistant was trained to help the researcher with the data collection. The researcher recorded the information on the data document sheet as the student assistant dictated it from the cumulative record. Because there were only two people involved in the process, there was less chance of error and more consistency in the interpretation of the data.

Ethnicity was recorded on the cumulative record using a number code. The interpretation included 1. American Indian, 2. Black, 3. Asian, 4. Hispanic, and 5. White. The number of moves was recorded for each grade beginning with kindergarten. An interpretation regarding the number of moves had to be made by the researcher if the cumulative record did not indicate where a child attended in a specific grade or year. Most of the records only showed where the child attended school in the district and not necessarily in other districts or states.

Letters of appreciation were sent to the teachers (see Appendix E) and principals (see Appendix F) who participated in the study. Notes of appreciation were also sent to each school secretary.

Null Hypotheses

1. There is no significant relationship between the number of times a fourth grade child relocates and achievement in mathematics and reading as measured by the I.T.B.S. subscale scores and the report card grades.
2. There is no significant relationship in the number of times a fourth grade child relocates and attendance as measured by the number of days absent in the 1992-1993 school year.
3. There is no significant relationship in the number of times a fourth-grade child relocates and classroom behavior as measured by classroom teacher perceptions on the Child Behavior Checklist.

Analysis of Data

The following sections restate the research questions and identify procedures and instruments to answer the questions. For each of the research questions the number of relocations refers to the total number of times a student moved residences from kindergarten through fourth grade.

Research Question #1: Is there a relationship between the number of times a fourth-grade child relocates and achievement in mathematics and reading as measured by the I.T.B.S. subscale scores and report card grades?

Iowa Tests of Basic Skills (Form G, Level 10) mathematics raw scores were recorded. The researcher used the composite math score which consisted of a compilation of individual scores in math concepts, math problems, and computation. Report card grades in mathematics for the first and second semesters were documented from the computerized report card grade report.

Iowa Tests of Basic Skills reading raw scores were recorded. One reading score was available to the researcher. Report card grades in reading for both first and second semesters were recorded from the computerized grade report. Extensive data on the reliability and validity of the Iowa Tests of Basic Skills are included in Buros Book of Tests and Measurements (1974) and the Sweetland and Keyser tests reference (1986).

Research Question #2: Is there a relationship between the number of times a fourth-grade child relocates and attendance as measured by the number of days absent in the 1992-1993 school year?

This question was answered using the data from the student's cumulative school record. Attendance was recorded using the number of days absent for the 1992-1993 school year.

Research Question #3: Is there a relationship between the number of times a fourth-grade child relocates and

behavior in the classroom as measured by classroom teacher perceptions on the Child Behavior Checklist?

The Child Behavior Checklist, authored by Thomas Achenbach and Craig Edelbrock (1988), was developed to assess the competencies and problems of students in a standardized format. This checklist is a detailed, four-page report form which seeks ratings and reports by different informants including teachers, parents, and students.

For purposes of this study a subtest of the Child Behavior Checklist, called the Teacher's Report Form, was used. This part of the checklist is designed specifically for teachers, but can be completed by administrators and school counselors. It indicates the adaptive functioning of a student in a classroom setting. Permission from the editor, Thomas Achenbach, was obtained to use only Part VIII which was the Adaptive Functioning section. This section of the test consisted of four items and produced a total adaptive score.

A shortened version of the test was needed because the study was not attempting to diagnose behavior problems, but to obtain a general overview of the child's classroom behavior from the teacher. This part of the report form was reproduced on a single sheet for teachers to complete. Using a seven-point Likert Scale the teacher was asked to indicate in general terms how each child works, how they

behave, how they learn, and how satisfied they are with school. The teacher's ratings for the four adaptive characteristics were scored 1 to 7 in categories ranging from much less to much more and were compared to typical pupils of the same age (Achenbach, 1991).

Demographic information was generated to provide background information regarding the sample (see Table 1). This information indicated that the sample population studied was representative of the district's population in gender and ethnicity.

Table 1

Demographic Composition of Sample vs. District Population

	Study Sample	District Population
Gender		
Female	48.6%	47.8%
Male	51.4%	52.2%
Ethnicity		
American Indian	0.8%	0.5%
Black	11.6%	12.3%
Asian	5.0%	4.8%
Hispanic	1.7%	2.9%
White	77.1%	79.5%
Missing cases	3.7%	

Pearson product-moment correlations were used to address the four research questions asked in this exploratory study. Correlation is a statistical technique that is used to measure and describe a relationship between two variables. Usually the variables are simply observed as they exist naturally in the environment. There is no attempt to control or manipulate the variables (Gravetter & Wallnau, 1988). Significance levels were set at .05 for each of the four research questions.

While not part of the original research design, follow-up regression analyses were conducted to identify which, if any, of the independent variables had the most powerful relationship with the dependent variable, mobility. An F Test was used to determine if the added variable contributed a significant amount of explained variance. These data are reported in Chapter 4.

Summary

This chapter identified the three research questions and the procedures utilized to address them. The data were collected from the student's cumulative record using Iowa Tests of Basic Skills subscale scores in reading and mathematics, spring and fall report card grades in reading and mathematics, and the number of days absent during the students fourth-grade year. Classroom teachers completed a

behavior checklist to obtain the behavior information.

Chapter 4 presents the results of the study.

Chapter 4

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

The data collected in this study are analyzed and presented in this chapter. The statistical calculations were completed using the Statistical Package for the Social Studies (SPSS). Pearson product-moment correlations and stepwise multiple regression analyses were utilized in determining the results in the study. Each research question is examined individually.

Research Question #1: Is there a relationship between the number of times a fourth-grade child relocates and achievement in mathematics and reading as measured by the I.T.B.S. subscale scores and report card grades?

As indicated in Table 2, negative correlations were found between scores on the I.T.B.S. mathematics tests and on math grades earned during the fourth grade. The frequency of a child's moves and scores on the I.T.B.S. mathematics test was $-.25$ ($p < .05$) and $-.21$ ($p < .05$) for report card grades earned in math during the fourth grade. The relationship indicates that when the mobility of a student increases the I.T.B.S. mathematics test scores and the report card grades in mathematics decrease.

Table 2

Correlation Coefficients Among Mobility, Academic Achievements, Attendance, and

Behavior

	I.T.B.S.M.	I.T.B.S.R	Math TOT	Read TOT	Atten	MovALL	BETOT
I.T.B.S.M	1.000						
I.T.B.S.R	0.7262**	1.000					
Math TOT	0.6628**	0.5969**	1.000				
Read TOT	0.6689**	0.7194**	0.7134**	1.000			
Atten	-0.0540	-0.1006*	-0.1525**	0.1277**	1.000		
MovALL	-0.2464**	-0.2577**	-0.2116**	0.2583**	0.0638	1.000	
BETOT	0.4332	0.4686**	0.5393**	0.6358**	-0.0635	-0.2601**	1.000

A negative relationship between the number of times a fourth grade-child relocates and I.T.B.S. reading subscale scores and reading report card grades is found. A correlation of $-.26$ ($p < .05$) is recorded for both I.T.B.S. reading scores and reading report card grades. This indicates that the more times a student moves the I.T.B.S. reading scores and reading report card grades decrease (see Table 2). The negative relationships which resulted in this research question indicate that the first null hypothesis was rejected.

Research Question #2: Is there a relationship between the number of times a fourth-grade child relocates and their attendance as measured by the number of days absent in the 1992-1993 school year?

There was no significant relationship between the frequency of moves and the absenteeism of students in the fourth grade. As indicated in Table 2 a correlational coefficient of $.06$ was found. The researcher failed to reject the second null hypothesis.

Research Question #3: Is there a relationship between the number of times a fourth-grade child relocates and their behavior in the classroom as measured by classroom teacher perceptions on the Child Behavior Checklist?

The strongest relationship among mobility and the other factors in this study was indicated in the behavior variable as measured by adaptive functioning scores on the Child Behavior Checklist. A negative correlation of $-.26$ ($p < .05$) was found between the frequency of the child's moves and negative student behavior. The third null hypothesis was rejected because relationships were found.

The results of the correlational study encouraged the researcher to further examine the relationships among the variables of mobility and I.T.B.S. mathematics and reading subscale scores, report card grades for mathematics and reading, attendance, and behavior. Correlations alone did not identify which factors seemed to be most profoundly influenced by student mobility. In order to determine which variables seem to be influenced the most by mobility, a stepwise multiple regression analysis was conducted.

Research Question #4: Do any of the variables of I.T.B.S. mathematics and reading subscale scores, mathematics and reading report card grades, attendance, and behavior explain more variance in mobility than others?

As indicated in Table 3, mobility seems to have the most impact on behavior and I.T.B.S. reading scores. Both behavior and I.T.B.S. reading subscale scores were significant at the $.05$ level.

Table 3

Stepwise Multiple Regression Analyses for the Relationships Among Mobility and Achievement, Attendance, and Behavior (N = 474)

Step	Variable	R	R ²	Increase R ²	Beta	F
1*	Behavior	.271	.073	--	-.271	33.868
2*	I.T.B.S. Reading	.314	.099	2.06	-.181	23.408

* P < .05.

The other four variables, I.T.B.S., mathematics subscale scores, mathematics, reading report card grades, and attendance were entered as one factor. They did not explain a significant amount of additional variance.

Summary

This chapter has focused on reporting the results of the data collected in this study as it relates to each research question. Significant relationships were found between mobility and achievement and behavior. No relationship was found between mobility and attendance. Behavior and I.T.B.S. reading scores explained about 10% of the variance when a stepwise multiple regression analysis was completed. Chapter 5 contains a summary and discussion of the results and recommendations for future research.

Chapter 5

SUMMARY, DISCUSSION, AND RECOMMENDATIONS FOR FUTURE RESEARCH

The purpose of this study was to consider the relationships between mobility and achievement, attendance, and behavior.

Overview of the Study

While educators and parents have expressed concern for students who move frequently, research on its effects are limited. This is particularly true in regard to the relationship among mobility, achievement, attendance, and behavior (Klee, 1988; Rachild, 1988). This exploratory study was initiated to examine these relationships in a medium-sized, urban school district.

In this study mobility was defined as the total number of times a child moved from kindergarten through grade four. Student achievement was measured in both reading and mathematics. A general picture of a student's performance in reading and mathematics was recorded by using Iowa Tests of Basic Skills subscale scores and combined fourth grade fall and spring mathematics and reading report card grades. Attendance was recorded as the number of days absent during the 1992-1993 school year which was the student's fourth

grade year. Achievement and attendance data were gathered from the student's cumulative record. Finally, behavior was measured by the classroom teacher's perception of the child's behavior as compared to other children in the fourth grade classroom. An adapted version of the Child Behavior Checklist instrument was utilized to determine this index (Achenbach, 1991).

In order to draw a sample population for this study, all elementary schools in this medium-sized urban school district were ranked from highest to lowest according to mobility percentages from the 1990-1991 building data base. The schools were divided into seven clusters of five schools and one cluster of four schools. One school was randomly selected from each cluster. A letter was mailed to fourth-grade parents informing them of the study and asking permission to review the child's cumulative record for needed information. All but nine fourth-grade students in these eight elementary schools were participants in the study.

The specific research questions that guided this study were:

Is there a relationship between the number of times a fourth grade child relocates and their achievement in mathematics and reading as measured by I.T.B.S. subscale scores and report card grades?

Is there a relationship between the number of times a fourth grade child relocates and attendance as measured by the number of days absent in the 1992-1993 school year?

Is there a relationship between the number of times a fourth-grade child relocates and their classroom behavior as measured by classroom teacher perceptions on the Child Behavior Checklist?

The significant findings of the first three questions led the researcher to ask a fourth related question. While this question was not part of the original study, it was deemed appropriate to include the question as it had practical as well as theoretical importance. The fourth question was:

Do any of the variables of I.T.B.S. mathematics and reading subscale scores, mathematics and reading report card grades, attendance, and behavior explain more variance in mobility than others?

The first three questions were addressed using Pearson product-moment correlations and the fourth question utilized stepwise multiple regression. The results and discussion of these findings are found in the following sections.

Findings for Research Question 1

Is there a relationship between the number of times a fourth-grade child relocates and achievement in

mathematics and reading as measured by the I.T.B.S. mathematics and reading subscale scores and report card grades?

As previously reported in Chapter 4, significant relationships between the number of times a child moves and achievement in mathematics and reading were found in this study. Significant negative correlations were found between mobility and I.T.B.S. mathematics subscale scores ($r = -.25$, $p < .05$), mathematics report card grades ($r = -.21$, $p < .05$), reading I.T.B.S. scores ($r = -.26$, $p < .05$) and reading report grades ($r = -.26$, $p < .05$).

These findings are somewhat in conflict with previous studies. In a study done by Concannon (1985), mobility did not affect mathematics or reading achievement of seventh-grade students as measured by the Comprehensive Tests of Basic Skills/U (CTBS/U). In this study student mobility was defined by using three groups: permanent which indicated no moves, low mobile which was one or two moves, and high mobile which was three or more moves. The sample population was drawn from urban, inner city, and parochial schools. In the data analysis, none of the three mobility groups affected achievement. Conflicting findings could be attributed to any of these variables: the age group studied, sample population, how mobility was defined, and the tests utilized. Concannon (1985) concluded that while mobility may be a point of transition producing stress, the

effects could be temporary or short term. Mobility as operationally defined in Concannon's study was not related to academic achievement among parochial elementary school children in New York City school districts.

Prior (1974) examined the relationships among mobility, reading achievement as measured by the Metropolitan Reading Achievement Test, and environmental process variables among inner-city students. The results in the Prior (1974) study were different than in this study as he used inner-city sixth-grade students and environmental process variables were defined as actions and interactions between the child and the parent which appear to be related to successful performance on criterion measures of intellectual performance. Prior (1974) suggests that the emotional development of a child begins first and foremost with the family and the home. The interactions and actions include factors such as aspirational level (motivation) of parent and child, educational guidance by parents, and work habits which are modeled in the home. These environment process variables were measured by the Henderson Environmental Learning Process Study (HELPS).

Prior (1974) defined mobility as did Concannon (1985). Student moves were grouped into three categories: non-mobile students which was no moves, moderately mobile which indicated up to two moves through the sixth grade, and highly mobile which was three or more moves. According to

Prior (1974) the results demonstrated that there was no significant relationship between mobility and mathematics and reading achievement for low income students. There was, however, a significant relationship between mobility and educational environment process variables.

The variables associated with educational environment may be more important predictors of achievement than mobility has on achievement (Prior, 1974). Educational process variables were not a part of this study. However, the educational guidance and work habit variables could have implications for the behavior and attendance variables in this study. Work habits reflect a child's behavior and good attendance patterns assist in the establishment of good work habits.

The results of this study also conflict with the Rachild (1988) study. Rachild focused on low income fifth- and sixth-grade students in Philadelphia from three separate racial groups (54 black, 54 white, and 54 Hispanic students). The Stanford Early School Achievement Test, Philadelphia City Wide Tests, and report card grades were used to determine achievement. The student cumulative record was also used to obtain mobility data. Mobility in the Rachild (1988) study was recorded as the total number of schools attended during the student's school career. The mobility rates of the blacks, whites, and Hispanics were similar with a reported correlation of .74.

Rachild (1988) found no significant relationships between mobility and achievement. The research done by Rachild (1988) was different than in this study where only fourth-grade students were studied and different standardized tests were used to measure the achievement level of the students. The results may also differ due to the fact that the sample was limited to a smaller number of low income students that were in a specific ethnic group. Therefore, the results could only be generalized to a restricted population.

Lindblad (1986) studied the mobility of sixth-grade students in an urban school as it related to student achievement. Comparisons of the standardized achievement test scores were made between those students who experienced: (a) no mobility, (b) mobility within a single school division (moved within the district), or (c) mobility among more than one school division (moved between more than one district). Gender, ethnicity, and socioeconomic status were also variables considered in the research. Achievement in reading, mathematics, and language arts were determined using the Scientific Research Association Assessment Survey (Form 1/F, 1978 edition). The raw scores were subjected to an analysis of variance to estimate main and interaction effects.

Lindblad (1986) found that mobility had a main effect at the .05 significance level with respect to reading and

language arts. There was no main effect for mathematics. These results were somewhat different than the ones in this study in that significant negative correlations were found in both reading and mathematics achievement. However, results of the regression analyses discussed later did indicate a stronger relationship with reading scores. Grade level of the sample population and the way mobility was defined in the Lindblad (1986) study were also factors that varied between the two studies.

In an earlier study, Bollenbacher (1962) found reading achievement was not affected negatively by mobility. She studied 5,578 sixth grade students in Ohio. Bollenbacher (1962) found significant differences on the grade equivalent scores of the Stanford Intermediate Reading Test. For those students moving three or more times there was a grade equivalent of 5.4 (fifth grade, fourth month) as against 7.1 (seventh grade, first month) for those who did not move at all. The mobile group average IQ score was 90.8 as compared to 103.1 for the non-mobile group. The author determined in a covariate analysis that reading achievement as measured by a standardized test is not effected by the number of schools attended. Differences in results in this study might have been impacted by limiting achievement to reading only, larger sample size, and testing assessment. The definition for mobility was the same for both studies.

Perrodin and Snipes (1966) investigated 483 sixth graders in six elementary schools in Georgia and found that the number of moves made by students did not affect academic achievement in reading comprehension, reading vocabulary, arithmetic reasoning, mechanics of English, and spelling as measured by the California Achievement Test. However, the achievement area of arithmetic fundamentals was related to the number of moves students made.

Mobility was defined by Perrodin and Snipes (1966) as the number of moves, the recency of the move and the distance of the move. Mobility and achievement were investigated with other variables including: age, sex, socioeconomic status, retention at a grade level for more than one year, and IQ scores. Analysis of variance and chi-square analyses indicated the number of moves made by pupils did not appear to affect reading vocabulary, reading comprehension, arithmetic reasoning, mechanics of English, and spelling. However, the arithmetic fundamentals area of achievement was affected by the number of moves. The recency of the move and the distance of the move were both related to at least one of the achievement areas. Retention, age, and IQ were positively related variables in all the investigated achievement areas.

Justman (1965) sampled 934 sixth-grade students from a low income area of New York City. The researcher used the Metropolitan Reading Achievement Test to determine reading

scores. IQ mean score changes between the third and sixth grade were determined using the Otis Alpha and Otis Beta tests. Justman (1965) found that there were significant negative changes in IQ scores for children with high mobility (four or more moves). A three-year longitudinal study was done to determine whether varying degrees of mobility were associated with changes in test scores in reading and IQ results. Mobile children's academic scores declined between the third and sixth grades while the non-mobile children evidenced consistently better performance between those grades. Justman (1965) concluded that the better performance of the non-mobile student may be a function of their uninterrupted school experience. The negative effect of mobility demonstrated that pupils must show a high degree of mobility before reading scores were markedly changed.

In a longitudinal study of mobility, Jones (1989) examined the relationship of ethnic group, gender, socioeconomic status, and grade level of the student's last move. A mobile student was described as one who had attended at least two different schools since entering first grade. In his study, the relationship of mobility and achievement was considered using third, fourth, and fifth grade students. There was a negative relationship between achievement in reading and mathematics with mobility at all three grade levels. However, the correlation was only

significant at the third and fifth grades. In this study a significant negative correlation was found at the fourth-grade level in reading and mathematics achievement which Jones (1989) did not find in his study.

Goebel (1978) and Morris et al. (1967) also found negative correlations as they considered mobility and reading achievement. Goebel (1978) studied the effects of geographic relocation upon 382 high school sophomores in an urban school. Scores from the Iowa Tests of Educational Development and cumulative grade point averages were used as measures of academic achievement. Five mobility groups were considered: highly mobile, moderately mobile, non-mobile, inter-community, and intra-community. Gender differences and age groups of students were also considered.

Goebel (1978) demonstrated that total mobility rate was not related to academic performance at adolescence. However, male adolescents who had been highly mobile during preschool and males with moderate inter-community mobility rates, scored significantly higher on long-term educational development than those who had been non-mobile. There were no significant findings for females nor between mobility variables and short-term educational performance. The results of this study suggest that parents and teachers should be more concerned about the age of the child and type of move made rather than how often a child moves. Although a different research design was utilized from the one used

in this study, negative relationships were found in both studies. Morris et al. (1967) conducted a study of the academic achievement in reading and mathematics of 410 fifth-grade students enrolled in an industrial suburban school district. The study controlled for socioeconomic status using the Wilson Classification of SES. The students' performance on the California Test of Mental Maturity were used as an index of intelligence which was then used to calculate the expected level of performance in reading and mathematics on the California Achievement Test (CAT). Mobility was defined as the total number of moves made by a student. The Morris research indicated that mobility did have a negative relationship with reading achievement, but did not in arithmetic. However, the demonstration of this effect depended on a multiple regression analysis which investigated variance in performance as a result of mobility, taking intelligence, race, and socioeconomic status into account.

Morris et al. (1967) suggested that for low socioeconomic students, the first move is the major dislocating one and that after the second move, some children recover and move into a higher achieving group. However, others become unsettled and apparently remain so, sinking to the bottom of the achievement scale after the second move. It is presumed that some children have learned to cope with environmental changes and even can learn from

them while other students can not adjust to the changes. The implication for individual prediction and personality variables should not be overlooked; however, they were not included in the research design in this study.

Ruby (1972) examined mobility in three Illinois school districts and one Iowa urban school district. The researcher looked at mobility, achievement, and socio-emotional adjustment. Reading, arithmetic, and social studies scores as measured by the Stanford Achievement Test for 208 fifth- and sixth-grade students were studied. The Children's Personality Questionnaire, Pupil Behavior Rating Scale, and the Ohio Social Acceptance Scale were used in determining the degree of socio-emotional adjustment. A fixed effects three-factor multiple dependent variable and covariate experimental design was utilized. Ruby (1972) found that in general sixth-grade students achieved significantly higher than fifth-grade pupils on measures of achievement. Students in both grades were equally well-adjusted; however, fifth graders were characterized as being more determined or persistent than sixth graders. He also found that school mobility, if four or more school systems had been attended, had a significant negative relationship with reading and mathematics achievement. If three or fewer school systems had been attended there was a trend, though not significant, that this relationship was the same.

The results of the Ruby study also indicated that school mobility, if four or more school systems had been attended, had a significant negative relationship with acceptance by classmates in the socioeconomic atmosphere of the classroom. There was also a positive relationship between school mobility and incidence of problem behavior. In this study the behavior variable was most impacted by mobility just as in the Ruby (1972) research.

In this study, similar to Ruby (1972), mobility was considered to be the total number of moves of each student and Ruby looked at each move (0-1-2-3-4 or more) individually. The investigation by Ruby (1972) most reflects the findings in this study. There was a significant negative relationship between mobility and achievement in reading and mathematics using Iowa Tests of Basic Skills as an achievement indicator. Behavior and adjustment were studied and it was found that girls were perceived to be behavior problems less frequently. Evidence suggested that significant differences in adjustment patterns existed, but did not substantiate the hypothesis that girls were better adjusted than boys. Mobility was not defined the same in the Ruby study and fifth- and sixth grade- students were used in the study instead of fourth graders.

The studies cited for the first research question varied in many ways. Most of the studies used fifth,

sixth, and seventh-grade students unlike the fourth-grade students used in the present study. There was a variety of definitions for mobility and the sample populations ranged from 162 as compared to one study having more than 5,000. Other variables included were gender, age, socioeconomic status, ethnicity, low income families, and highly mobile populations which provided different findings depending upon the research questions in the studies. There were many different assessment tests for finding achievement results and several statistical analyses utilized. However, all the studies were done in urban school settings.

Smardo (1987) suggests that mobility seems to be too broad a variable to test independently. The studies that have focused specifically on mobility and academic achievement have been inconclusive, yet there have been several studies that when examining the phenomena comprehensively have indicated relationships of varying degrees. This seems particularly true in the ones that looked at reading achievement (Bollenbacher, 1962; Murton & Faunce, 1966; Ruby, 1972; Snipes, 1966).

Findings on Research Question 2

Is there a relationship between the number of times a fourth-grade child relocates and attendance in the classroom as measured by the number of days absent in the 1992-1993 school year?

Even though it is natural to assume that mobile students will miss more days of school, there is no significant relationship between mobility and attendance in this study ($r = .06$). In reviewing the literature, no specific research was found that explored only the relationship of mobility and attendance. Instead the research has focused on the relationship between absenteeism and achievement. While such studies have shown a relationship between attendance and achievement, discipline, and ethnicity, mobility was not identified as a factor causing greater levels of absenteeism (Edwards, 1990; Monk & Ibrahim, 1984; Rozelle, 1968; Stennett & Isaacs, 1980).

The results of this study indicate that further work in examining mobility and absenteeism is probably not an efficient use of the researcher's time. Instead the research on attendance has identified such issues as unfavorable parental opinion of the school, a previous history of absence, low achievement, inflexible academic standards, and inappropriate curricula as more potent predictors for missing school (Greene, 1963). In another study, Schaller (1976) suggested that negative school experiences, the gender of the student, not being accepted by their peers, and socioeconomic status were variables that could cause poor school attendance for students. All of these factors can be important predictors of absenteeism.

Unlike Questions 1, 3, and 4 where several definitive studies conclude that there are relationships between mobility and achievement in mathematics, reading, and behavior, there was a paucity of conclusive evidence and research to relate mobility and attendance. Since the research reported herein also failed to show a significant relationship, it was concluded that too many variables affect attendance and a weak link exists between mobility and attendance.

Findings on Research Question 3

Is there a relationship between the number of times a fourth grade child relocates and classroom behavior as measured by teacher perceptions on the Child Behavior Checklist?

Behavior is the variable that appears to be most affected by mobility. A significant negative correlation was found between mobility and behavior ($r = -.26$, $p < .05$). It also explained the most variance in the regression analyses discussed in the next section.

Moving appears to be a traumatic event which results in students displaying many different behaviors in the classroom. Depression, regression, aggression, heightened defenses, loneliness, and detachment from peer interactions are common responses to trauma. Children often lack the ability to effectively communicate many of their feelings.

They become overwhelmed by the changes brought about by moving and react accordingly (Matter & Matter, 1988).

There are few studies that focus only on mobility and behavior. Other variables such as achievement, family structure, and socioeconomic status are included in the research. Most often behavior considered peer relationships and adjustment to new school settings. However, in all the studies the results indicated that behavior is affected in some way when students move which supports the high negative correlation found in this study.

Much of the research on the school adjustment of mobile students has been theoretical or anecdotal in nature. Harms and Fleming (1976) determined that the mobile student is perceived as a problem in the areas of achievement and behavior which included social adjustment. The authors researched the social adjustment of a random sample of 860 sixth-grade-mobile and non-mobile students. Their study tried to answer the question: Do teachers perceive mobile and non-mobile students differently? Mobile students were considered to be those who had moved two or more times and non-mobile were those students who had attended only one school.

Teachers rated the children on eight behaviors found on the 1969 Survey on Compensatory Education and the mobile and non-mobile groups were compared. A weak correlation

($r = .15$) was not seen to be highly explanatory of the differences in the mobile and non-mobile group as perceived by classroom teachers (Harms & Fleming, 1976). In this study teachers completed an adaptive functioning checklist for each child from the Child Behavior Checklist (Achenbach, 1991) which included information about the appropriateness of each student's behavior as well as how hard the student worked, how much the student was learning, and how happy the student was in school. This specific information assisted in showing that the independent variable of behavior was most impacted by mobility.

Schaller (1974) investigated the mobility history of students and how they felt about school. Data were collected from 217 fifth- and 223 sixth-grade students in Sweden. Students were asked to complete a questionnaire created by Magnussen, Duner, and Beckne in 1967 that sought their perceptions about different aspects of school. Each student indicated on a five-point Likert Scale their response which ranged from highly negative to highly positive. Two subtests of the DBA group administered intelligence test created by Harnquist in 1960 were used to assess student intelligence. Schaller (1974) found that high-mobility pupils reported more problems with their peers than did low-mobility pupils. High-mobility students socialized with fewer peers during their leisure time than pupils of the low-mobility group. He emphasized that

mobility contributes strongly to how children experience their school situation.

Stubblefield (1955) also considered peer relationships in his study of mobility and children's emotional problems. In two case studies presented by the researcher, the child's attitude about exploring the outside world, the type of ego defenses, and relative security and comfort within the family structure were examined. It was determined that the one dynamic factor to be considered is the emotional attitude of the parents and siblings about the move. Attention must be paid to the methods used by parents and other persons who come in contact with children who are involved in a major family move.

Peer interactions and relocation were studied by Cornille, Bayer, and Smythe (1983). Questionnaires were sent to 552 middle schools in the United States. In addition to demographic information received from the respondents, assessment regarding the special needs of residential newcomers, problems and procedures associated with relocation to a new school, and procedures and special programs offered to newcomers were reviewed.

Cornille et al. (1983) concluded that children generally have some difficulty associated with relocation. However, the services and procedures provided focused on meeting the functional requirements of the school with substantially less attention given to easing the integration

of the children into the new school community. The school's responsibility supporting the adjustment of children who will be moving to another school system seems primarily limited to the transfer of academic records with less investment in the socio-emotional concerns of relocation. This study suggests that school personnel do not take time to help students with moving either as the student moves into a school or as they move out of the school. Cornille et al. (1983) suggest that the negative consequences of relocation could be reduced through preplanned services and resources.

Fox (1989) used a case study design in which 14 student relocations were examined. Among the students in the study, no trend could be identified to suggest that relocation was related to changes in subsequent academic performance. However, when additional variables were considered changes in academic performance did take place. Those variables included family structure, sense of permanence, previous grades, and number of previous relocations.

The Fox findings suggested that when there was a deterioration of behavior from relocation it was found more at school rather than at home. This deterioration may result from a greater change students experience at school or from different behavioral expectations. Fox (1989) also discovered that students who live in a two-parent household demonstrate better relocation behavioral adjustment. The

author found that student's attitude toward relocation and change in schools influenced behavioral adjustment.

Findings on Research Question 4

Do any of the variables of I.T.B.S. mathematics and reading subscale scores, mathematics and reading report card grades, attendance, and behavior explain more variance in the variable of mobility than others?

As previously reported in Chapter 4 (Table 3), behavior and I.T.B.S. reading subscale scores explained the most variance in the dependent variable of mobility. The remaining independent variables of I.T.B.S. mathematics subscale scores, mathematics and reading report card grades, and attendance were entered as one factor and did not explain a significant amount of additional variance.

About 10% of the variance is explained with the behavior factor and the I.T.B.S. reading subscale score. Because both factors are significant and the results supported by other studies as cited, schools need to be aware of the impact of mobility. From the results of this study the two critical areas needing attention are reading instruction and socialization support to prevent behavior problems.

Reading involves communication and influences all other areas of the curriculum. Reading is also developmental.

Proficiency grows as the child progresses through the grades. New experiences, vocabulary, and constant interaction with the printed word enhance reading ability throughout the individual's lifetime (Gunning, 1992). When students miss important classroom instruction and opportunities in literacy development are interrupted, a student's educational progress can be lessened. When mobile students move from school to school, change curricular approaches to reading instruction, interact with new teachers and their instructional techniques, they can become disadvantaged in reading skills. Skills must be taught and retaught and sometimes the lapses in their learning due to moving are never addressed. This study emphasizes that reading is impacted greatly by mobility and that we must be aware of what schools can do to meet this important instructional need of mobile students.

Matter and Matter (1988) suggest that there are four ways to provide support to mobile students to decrease behavior problems that can occur because of relocation. These steps include: (a) to realize the impact relocation has on children, (b) to recognize the signs of stress in children, (c) to provide as much stability as possible in the child's life, and (d) to ease the child into the new environment. Parents, teachers, and counselors need to be aware of these steps so that strategies can be developed to

assist mobile students. Suggested strategies are discussed in more detail later in the chapter.

Summary

The results of the study identify two major questions that should be considered. The first question is: How do we minimize the negative impact on achievement, particularly in reading, created by mobility? The second question is: How do we help the new student adjust to a new social environment? The primary function of schools is to provide optimal educational services and learning environments for children. However, as students move and learn to adjust to new school settings, teachers, and peers, the learning process is interrupted. The school must take a proactive approach to the impact of mobility when the child enters the classroom door.

First, the adjustments must start immediately with the teacher. A teacher must make every effort to get to know the student as soon as possible. There is often a time lapse between the student's arrival in a class and the time their school record arrives from the previous location. This loss of instructional time can hold up important instructional decisions for the student. In order to make the best use of time, schools must:

1. Institute an assessment process for evaluating a student's ability. The school should establish procedures

for such a process. This process needs to consider the kinds of assessment instruments available, the availability of personnel to do immediate evaluation, and verify what specific feedback the classroom teacher needs to ensure the proper placement of the student in a group where they can function successfully.

2. Assess teaching strategies and classroom techniques to be sure they reflect best practice and support all students in the learning process. When the mobile student arrives in the classroom strengths and weaknesses in the students' learning must be identified. Bracey (1991) suggests that teachers must often backtrack and reteach especially in the area of reading. The author also suggests that teachers are often not prepared to do the reteaching and feel less than successful in helping the mobile student.

3. Update and change curricular materials to meet the needs of the mobile student population. Often mobile students move after the school year begins or at the beginning of the calendar year. When patterns like these occur school districts should use that information to plan and adjust the curriculum for the mobile student. Most often teachers are not satisfied with their ability to identify and fill the gaps in a new student's knowledge yet minimize the disruption of classroom instruction (Lash & Kirkpatrick, 1990).

4. Encourage teachers to have equitable expectations for learning and behavior for all students whether they be mobile or non-mobile, low or high ability, Hispanic or Caucasian, physically or mentally disabled. Because new students must learn to adjust to a variety of processes it is important for teachers to share with students the rules of the classroom and the school as soon as they arrive (Lash & Kirkpatrick, 1990).

5. Develop staff development programs in order to enhance classroom strategies and teaching techniques that will assist the mobile student. Teachers are required to meet the needs of mobile students as best they can with resources available. Staff development opportunities can assist teachers in developing new instructional techniques that are flexible and beneficial to all students.

The second question is: How do we help the new student adjust to a new social environment? According to Cornille et al. (1983), the most commonly reported adjustment need of newcomers involves peer interactions. This includes getting acquainted with people their own age, making new friends, and meeting other young people in their neighborhood. Another important factor was getting adjusted to the structure of the new school which included getting acquainted with a new building, new teachers, and becoming oriented to different academic standards and programs. Often adjustments must be made as a result of changes in the

family such as divorce, separation, or death of a family member. Developing a sense of belonging in a neighborhood is also a change that can cause frustration to a student.

Currently more time is spent on locating immunization records and information essential to the administrative placement of the child within the school than attending to the adjustment needs of the students. Less time is spent on the process of directing the newcomer through the school's structure such as the handbook, guided tours, introductions to school personnel, and a map for the student. Little or no time is spent on parent orientation and integration of all family members into the larger school community such as recreational, church, and youth group opportunities. Little time is provided by the counselors to help the students deal with the various transitions they are experiencing. The results of this study would suggest that the priorities must change. More time needs to be spent in supporting the newcomers in addressing their instructional needs when they first arrive in a school.

The results of this work and others cited reinforce the need for counseling support for students and parents when a move occurs. This support could be given in various ways. Some suggestions include:

1. Student support groups. Counselors need to know when new students arrive in a school and consciously work to integrate them into the social fabric of the new school.

Students should be welcomed to the school by being introduced in a school newsletter or in a welcome letter to parents and students. Peer support groups such as New Kids Groups and buddy systems for students are ways that new students can receive immediate support and assistance. These groups should be open so that newcomers, whenever they arrive, can join the groups.

2. Parent support groups. Group meetings for parents of new students can help parents facilitate their sons' or daughters' transition. Newcomers coffees sponsored by the P.T.A. or other parent groups could help parents become informed of the new school, its procedures and personnel. This group of newcomers could also become a support group for the adults who are new to the community.

3. Establish direct contacts between the previous and new teachers and counselors. The previous classroom teacher could be contacted as soon as the move is announced and asked for information about the student or asked for a portfolio of student work and results of tests to accompany the student. The same goes with the previous counselor. In addition to phone calls new computer network programs can be utilized.

4. Introduce new students to the counselor immediately. This provides security for the students by simply being available when the child needs stability. Students who must cope with a whole new school system often

find refuge in one person who provides information and support.

If the parents and students were supported with school-wide services as soon as they arrived in the new school setting, they would feel more a part of the school and the community and not want to move. This additional support sends the message to students and parents that schools care and want students to stay. One caution is that sometimes a student doesn't mind moving because they get so much attention. This would depend on the individual student, but is a factor of which counselors should be aware.

Through several different approaches the impact of turnover for both students and staff can be somewhat tempered. Through preplanned services and resources the negative consequences of relocation can be reduced and new school experiences can be more satisfying and enriching.

Recommendations for Further Study

Based on the results of this study several areas require additional investigation. The following are suggestions for future studies.

1. While the results of this study covered a student's mobility record from kindergarten through Grade 4, a longitudinal study should be conducted that would examine progress of students through high school. This study should pay particular attention to achievement and behavior as it

relates to mobility. It would be interesting to see if these factors influence higher dropout rate, difficulty with the law, or other dysfunctions that teens and adults experience.

2. A study should be conducted to identify the students who are most impacted by mobility to see how achievement, attendance, and behavior is affected. It is conceivable that the reason for moving is more significant than the number of moves (Goebel, 1978).

3. A study should evaluate intervention programs used to acclimate new students and families to a school community. A plan should be developed for integrating new students into the instructional program, then test the intervention strategies for their effectiveness and efficiency. Programs that make use of advanced technology (i.e., E-Mail) may yield positive results.

4. Examine stability programs that provide mobile students the opportunity to remain in the school where they began for that particular school year. If parents continue to move during the year, causing the child to change schools often, provide transportation from the student's residence and let the child remain in the original school. This provides stability for the student in the school setting even if there is constant change in the home. Would stability programs improve the mobile student's achievement? Schuler's (1990) study in Rochester, New York, suggests that

community agencies working together can provide solutions for helping highly mobile families. Stable housing assisted improving achievement and attendance for students. Mobile students were identified and compared to a stable group, math and reading scores on the California Achievement Test (CAT) were used to determine achievement, and mobility was defined as the total number of moves during their school career. Excessive student mobility negatively affected academic performance. This study showed, by creating partnerships with the Department of Social Services, landlords of housing projects, and parent activities, changes in the conditions of the community as well as the attitudes of students and parents were realized.

5. Although this study did not find a significant relationship between mobility and attendance it is suggested that future research investigate the attendance variable and how it relates to achievement. In this study there was a negative relationship for attendance and I.T.B.S. mathematics and reading subscale scores, report card grades, and behavior. Schools need as much information as possible as to why students choose to be absent and the reasons for not wanting to be in school.

6. Research which explores a mobile child's attitudes toward school, toward himself/herself, and their environment should be explored. The results of this study could have curricular and student support program implications.

7. For this study student achievement was measured in reading and mathematics. A future study should be completed to determine if there is a relationship with mobility and all other areas of the curriculum such as language arts, science, and social studies.

8. Case studies of mobile families and their children might reveal why moving affects achievement, attendance, and behavior of students differently. For example, some of the students in this study made several changes, but some of the moves were a return to a previous school. This study viewed all moves alike and assumed all were equal in their effect on the child. A move that returns a child to a previously attended school should not have the same effects on a child as a move to a new school. Returning to a previously attended school should be studied further and the performance of students analyzed for differences.

Conclusion

It is hoped that future studies will build upon the findings and recommendations suggested in this exploratory study. This investigation has revealed some direction for further research that may benefit the millions of children who relocate each year. This study cannot claim to fully explain the relationships between mobility and achievement and behavior. It can, however, be concluded that there is a

negative relationship between mobility and achievement and behavior.

Mobile students often create more administrative paperwork, classroom teacher frustrations, and a lack of consistent educational programming. Despite these problems the needs of these students are such that we, as educators, cannot afford not to exert extra efforts to help them adjust. It is a responsibility of educators to create a brighter future for mobile students. This goal should be a continual priority.

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